DOCUMENT RESUME

ED 210 658 CS 006 409

TITLE Reading, Comprehension, and Memory Processes: Abstracts of Doctoral Dissertations Published in "Dissertation Abstracts International," July through December 1981 (Vol. 42 Nos. 1 through 6).

INSTITUTION ERIC Clearinghouse on Reading and Communication Skills, Urbana, Ill.

PUB DATE 81

NOTE 16p.; Pages may be marginally legible.

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS Advance Organizers; Annotated Bibliographies; Cognitive Processes; Context Clues; *Doctoral Dissertations; Elementary Secondary Education; *Memory; *Reading Comprehension; Reading Diagnosis; Reading Difficulties; *Reading Instruction; *Reading Research; *Recall (Psychology)

IDENTIFIERS Prose Learning

ABSTRACT

This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. The 27 titles deal with a variety of topics, including the following: (1) the effect of a crowded or spaced appearance of narrative material on the reading comprehension of above-average and below-average fourth grade students; (2) the perception and use of sentence structure by good reading comprehenders and skilled decoders in contextually limited environments; (3) the use of three prereading strategies and their effects on the comprehension of junior high school students; (4) reading performance as a function of auditory sequential memory, anxiety, and age or grade level; (5) metatextual notions and reading comprehension; (6) third grade readers' use of prior knowledge in inferential comprehension; (7) gender conformity, text characteristics, and comprehension of stories; (8) the relationships between student retellings and selected comprehension measures; (9) contextual prerequisites for making inferences from text; (10) inferential listening and reading comprehension of discourse in normal and reading disabled children; (11) the effects of pictures on the literal comprehension of second grade readers; and (12) the effects of students' meaning perception and textual structuring upon the comprehension of social studies reading passages. (FL)

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Reading, Comprehension, and Memory Processes: Abstracts of Doctoral Dissertations Published in Dissertation Abstracts International, July through December 1981 (Vol. 42 Nos. 1 through 6)

Compiled by the Staff of the
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Abstracts of the following dissertations are included in this collection:

Anderson, Kaye West
THE EFFECT OF A CROWDED OR SPACED APPEARANCE OF NARRATIVE MATERIAL ON THE READING COMPREHENSION OF ABOVE-AVERAGE AND BELOW-AVERAGE FOURTH GRADERS

Bowman, Margaret Ann
THE EFFECT OF STORY STRUCTURE QUESTIONING UPON THE COMPREHENSION AND METACOGNITIVE AWARENESS OF SIXTH GRADE STUDENTS

Cioffi, Grant Louis
THE PERCEPTION AND USE OF SENTENCE STRUCTURE BY GOOD COMPREHENDERS AND SKILLED DECODERS IN CONTEXTUALLY LIMITED ENVIRONMENTS

Coale, Genevieve Davila
THE EFFECTS OF FIVE POSTREADING INSPECTION TECHNIQUES ON READING COMPREHENSION OF CHUNKED AND STANDARD FORMATS OF SOCIAL STUDIES MATERIALS

Dayhoff, JoEtta Palkovitz
THE EFFECTS OF PRIOR KNOWLEDGE ON THE FREE AND CUED RECALL OF SKILLED AND LESS SKILLED COMPREHENDERS

Dean-Guilford, Maude Evelyn
AN INVESTIGATION OF THE USE OF THREE PREREADING STRATEGIES ON THE COMPREHENSION OF JUNIOR HIGH SCHOOL STUDENTS

Edgar, Susan Elizabeth
THE EFFECT OF ADVANCE ORGANIZERS ON EXPOSITORY PASSAGE RECALL BY LEARNING DISABLED AND NONDISABLED YOUNGSTERS

Farr, Pi Addie
THE STRATEGIES READERS EMPLOY IN COMPREHENDING EXPOSITORY AND NARRATIVE TEXT OF DIFFERING LENGTHS

Forsythe, Sandra Johnson
THE EFFECT OF VOCABULARY-RELATED CULTURAL DIFFERENCE ON INFERENTIAL COMPREHENSION BETWEEN BRITISH AND AMERICAN STUDENTS

French, Valarie Willis
A COMPARISON OF THE EFFECTS OF VERBAL ELABORATION ON THE RECALL OF SKILLED AND LESS SKILLED READERS

Garrett, Sherrye Dee
READING PERFORMANCE AS A FUNCTION OF AUDITORY SEQUENTIAL MEMORY, ANXIETY, AND AGE/GRADE LEVEL

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Hathaway, Betty Kay
THE EFFECTS OF VISUAL AND MOTOR SUPPLEMENTS ON PRESCHOOL CHILDREN'S COMPREHENSION AND RECALL OF PROSE

Kimmel, Susan
CHILDREN WITH A PERSEVERATIVE TEXT INTERPRETATION STRATEGY: THE EFFECT OF TEXT ORGANIZATION

Kraus, Catherine Anne
AN INVESTIGATION OF THE EFFECTS OF LITERAL AND METAPHORIC TITLES ON GOOD AND POOR READERS' COMPREHENSION OF TEXT

Kreider, Karen Beechy
THE EFFECT OF TOPIC SENTENCES AND THEIR PLACEMENT ON THE READING COMPREHENSION OF GROUPS OF ACHIEVING ELEVENTH GRADE MALE READERS

LeSourd, Sandra Jo
THE EFFECTS OF STUDENTS' MEANING PERCEPTION AND TEXTUAL STRUCTURING UPON THE COMPREHENSION OF SOCIAL STUDIES READING PASSAGES

Lipson, Marjorie Ann Youmans
THIRD GRADE READERS' USE OF PRIOR KNOWLEDGE IN INFERENTIAL COMPREHENSION

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McNeal, Errol William
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Meyers, Ruth S.
GENDER CONFORMITY, TEXT CHARACTERISTICS AND COMPREHENSION OF STORIES

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INFERENTIAL LISTENING AND READING COMPREHENSION OF DISCOURSE IN NORMAL AND READING DISABLED CHILDREN

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Winocur, Sara Lee Miller
THE IMPACT OF A PROGRAM OF CRITICAL THINKING ON READING COMPREHENSION REMEDIATION AND CRITICAL THINKING OF MIDDLE AND HIGH SCHOOL STUDENTS

THE EFFECT OF A CROWDED OR SPACED APPEARANCE OF NARRATIVE MATERIAL ON THE READING COMPREHENSION OF ABOVE-AVERAGE AND BELOW-AVERAGE FOURTH GRADERS Order No. 8120670

ANDERSON, KAYE WEST, PH.D. *Southern Illinois University at Carbondale*, 1980. 229pp. Major Professor: Margaret Keyser Hill

The purpose of this study was to ascertain whether or not pupils reading materials presented in a spaced format (fewer lines and therefore less reading material per page) comprehend the information better than pupils reading materials presented in a crowded format (more lines and therefore more reading material per page).

Two hundred forty-five fourth graders from a midwestern capital city of one hundred thousand population, grouped by reading ability (above average and below average), view of the reading process (considering understanding the message or pronouncing the words more important), and sex, individually read orally a story prepared in either a crowded or spaced format and then retold the story to the researcher in accordance with the *Reading Miscue Inventory* retelling procedures. The above-average-reading-ability subjects read a fifth grade story in one of the two formats while the below-average-reading-ability subjects read a third grade story in one of the two formats. From the retellings, a comprehension score was calculated for each subject.

Results of an analysis of variance (comprehension was the dependent variable; and format, view of the reading process, and sex were the independent variables for each of the two ability groups) indicate that (1) sex and format considered individually and the interaction of sex x viewpoint and viewpoint x format do not affect comprehension for either above-average or below-average readers; (2) viewpoint does not affect the comprehension of below-average readers, but does seem to be an important variable for above-average readers who comprehend better when they view reading as understanding the message (probability = 6.1); and (3) sex x format affects the comprehension of below-average-reading-ability males who favor the spaced format (probability = 4.6) and seems to affect the comprehension of above-average-reading-ability females who also favor the spaced format (probability = 7.7).

THE EFFECT OF STORY STRUCTURE QUESTIONING UPON THE COMPREHENSION AND METACOGNITIVE AWARENESS OF SIXTH GRADE STUDENTS Order No. 8116456

BOWMAN, MARGARET ANNE, PH.D. *University of Maryland*, 1980. 254pp. Supervisor: Dr. Linda Gambrell

Recent research has shown the importance of the structure of narrative discourse for comprehension and recall of text. These studies suggest that good readers recognize and employ this structure, while poor readers appear to lack this skill. The purpose of this research was to investigate the effectiveness of a Story Structure Questioning Strategy upon the reading comprehension of sixth grade students with reading levels extending from third to ninth grade level. Subjects were randomly divided into two groups so that both had proportionally equal numbers of good, poor and average readers.

The Story Structure Questioning Strategy Group was designed to assist students in developing an awareness of the structural elements of a story. This strategy utilized questions which focused upon story grammar (setting, theme, plot and resolution). The Alternate Questioning Strategy Group utilized more traditional questions (i.e., literal, interpretive, and problem-solving) during the instructional sessions.

All students had four small group teaching sessions and one testing session. Subjects read a folktale at their independent reading level during each teaching session, and then answered the designated questions. During the testing session, students read a folktale at their independent reading level and then either immediately or one week later retold the story and answered story structure, literal and interpretive questions about it. At this time students were also asked about strategies they used to help remember stories.

The folktale was parsed into propositions to score the free recall; three raters scored all free recall protocals. Answers to cued recall questions were also scored by three raters using a standardized answer sheet. The data were analyzed using multivariate analysis of variance. The findings are as follows: (1) Performance on the cued recall task was statistically significant in favor of the Story Structure Questioning Strategy. There was no statistically significant difference for free recall performance. (2) There was no statistically significant difference in the amount of material forgotten between the two testing sessions for both strategies with free and cued recall. (3) There was a statistically significant correlation between level of reader and free and cued recall performance, although subjects were reading materials at their independent reading level. (4) The good readers were more able than the poor readers to verbalize specific strategies for remembering stories.

Current prose theory advances the notion that there is a basic grammar in stories that is used more often by good readers than poor readers as a tool for enhancing comprehension and recall. The present research supported this theoretical base for comprehension of folktales.

Since there were statistically significant findings for cued recall and none for free recall, further research might suggest ways of altering the teaching strategy by extending the number of sessions, or adding a retelling practice component. Future research might also concentrate more on below average readers and the effect of the Story Structure Questioning Strategy upon the comprehension performance of this group.

For teachers, findings for the present study suggest that the Story Structure Questioning Strategy can facilitate cued recall performance of folktales for sixth grade students. The results also suggest that poor readers are unable to verbalize, and may lack, specific strategies for helping them to remember stories.

THE PERCEPTION AND USE OF SENTENCE STRUCTURE BY GOOD COMPREHENDERS AND SKILLED DECODERS IN CONTEXTUALLY LIMITED ENVIRONMENTS Order No. 8114980

CIOFFI, GRANT LOUIS, PH.D. *University of Minnesota*, 1981. 447pp.

This study investigated the use and perception of sentence structure by good comprehenders and skilled decoders (students with good word recognition skills but poor comprehension abilities). Third and fourth grade students read and parsed sentences using a pause location task. The two groups demonstrated remarkably similar sensitivity to grammatical structure. In a second study, pause locations identified by each group were marked in the text. Such text manipulations facilitated the reading comprehension of skilled decoders but not the good comprehenders' performance. The studies suggest that skilled decoders differ from good comprehenders in their use of rather than knowledge of sentence structure.

THE EFFECTS OF FIVE POSTREADING INSPECTION TECHNIQUES ON READING COMPREHENSION OF CHUNKED AND STANDARD FORMATS OF SOCIAL STUDIES MATERIALS Order No. 8115859

COALE, GENEVIEVE DAVILA, PH.D. *Temple University*, 1980. 223pp. Chairman: Elizabeth S. Davis

The purpose of this study was to investigate the ability of ninth-grade subjects to use selected postreading inspection techniques. The techniques were the use of questions, the cloze, the maze, a modification of the maze, and a storage retrieval technique as facilitators of reading review of "chunked" and standard formats of social studies materials.

Ten intact groups were selected from ninth-grade social studies classes. The five techniques and two formats presented in 10 different instructional packets were randomly distributed to subjects in these groups. Each subject received one instructional packet. After the completion of the sample and treatment reading passages, their accompanying exercises and answer keys, each subject was given a 10-item multiple-choice retention-comprehension test.

In the 10 question review, questions were constructed according to the types proposed by Barrett (1976). Three of the questions required recall of information read. Six demanded making inferences and one called for evaluation. The cloze treatment was composed of an every-fifth deletion cloze with a total of 187 deletions. The maze and a modification of the maze treatments were composed of every-fifth deletions with three word choices typed below each omitted word. The storage retrieval task was composed of numbered line segments called "chunks." Sixteen of the 80 segments were incorrect, changing the literal meaning of the passage.

Two versions of each passage were available. Each line of the standard format copied directly from the text averaged 10 words in length. In the "chunked" format phrase boundaries consistent with linguistic rules were developed. Each line ended at the junction of a phrase boundary. No line contained more than seven words.

Data, consisting of I.Q. and reading achievement scores, were obtained prior to the treatment. Since no pre-existing significant differences were found among the groups, two-way analyses of variance were used to test the nine null hypotheses. All hypotheses were accepted or not accepted on the basis of a .05 level of significance.

It was revealed through an analysis of the data that none of the four experimental reading review techniques was superior to the use of

questions. Questions were found to be significantly superior to the every-fifth open-deletion cloze procedure as a facilitator of literal and total comprehension. No significant differences existed between the mean of the groups receiving the standard format and the mean of the groups receiving the "chunked" format. In addition, interaction effects of technique with format were nonsignificant.

The results paralleled previous research where the combination of question position and type influenced general comprehension, and supported the conclusions drawn by Felker & Dapra (1975). Questions demanding constructed responses rather than single word or recognition response might be highly effective in facilitating general comprehension of the prose passage. In this study they were significantly superior in influencing literal and general comprehension to the use of the every-fifth deletion cloze where subjects were instructed to complete the missing word. The use of postquestions also appeared to have had a facilitative effect on incidental learning since seven of the 10 questions on the retention-comprehension test demanded comprehension of the passage not elicited by the treatment questions.

The results of the comparison between the standard and "chunked" formats duplicated that of Frase and Schwartz (1979) and supported the conclusions drawn by Carver (1970). The "chunking" of reading passages into meaningful groups of words did not facilitate the reading comprehension of mature readers.

Implications for teaching reading to elementary and secondary students were discussed. In addition, recommendations for further research were made.

THE EFFECTS OF PRIOR KNOWLEDGE ON THE FREE AND CUED RECALL OF SKILLED AND LESS SKILLED COMPREHENDERS

Order No. 8116467

DAYHOFF, JOETTA PALKOVITZ, PH.D. *University of Maryland*, 1980. 134pp. Supervisor: Robert M. Wilson

The primary purpose of this study was to investigate the effects of prior knowledge upon skilled and less skilled comprehenders' responses on (1) free recall as evidenced by recall protocol match to text, (2) textually explicit information and (3) textually implicit information. The seconday purpose of this study was to investigate the possibility that there is a difference in strength of relationship between free and cued prior knowledge on the variables of (1) free recall as evidenced by recall protocol match to text, (2) textually explicit information and (3) textually implicit information.

Data were collected on an evaluation instrument consisting of a 357 word passage and 10 questions; 5 explicit and 5 implicit, formulated on selection content.

The 136 fourth grade students participating in the study were enrolled in five public elementary schools in Washington County, Maryland. Students from 11 classrooms were identified by classroom teachers as skilled or less skilled comprehenders reading on a fourth grade level.

The sample consisted of 68 male and 68 female subjects. Of the 136 subjects 80 were identified as skilled comprehenders and 56 as less skilled comprehenders.

Raw scores were tabulated for each subject on free and cued prior knowledge and free and cued recall. The total cued recall score was broken down into explict and implicit cued recall scores.

Significance of differences among skilled and less skilled comprehenders prior knowledge and free and cued recall was tested by Analysis of Covariance and Homogeneity of Regression. Pearson Product-Moment Correlation was computed to obtain intercorrelations between free prior knowledge and cued prior knowledge and the dependent variables to determine strength of relationship.

Within the limitations of this study the following conclusions were drawn from the findings: (1) Skilled comprehenders did produce more information than less skilled comprehenders on the free recall task, explicit and implicit comprehension tasks. (2) Subjects did produce more information on the free recall task, explicit and implicit comprehension tasks as the level of free and cued prior knowledge increased. (3) The difference between skilled and less skilled comprehenders on the free recall task, explicit and implicit comprehension tasks was not affected by the free and cued prior knowledge level. (4) There was no difference in strength of relationship between free prior knowledge and cued prior knowledge on the free recall task and explicit comprehension task. (5) There was a difference in strength of relationship between free prior knowledge and cued prior knowledge on the implicit comprehension task.

AN INVESTIGATION OF THE USE OF THREE PREREADING STRATEGIES ON THE COMPREHENSION OF JUNIOR HIGH SCHOOL STUDENTS

Order No. 8121305

DEAN-GUILFORD, MAUDE EVELYN, ED.D. *University of Houston*, 1981. 206pp. Chairperson: Dr. Laveria Hutchison

Two purposes of this study were to determine what impact, if any, three prereading strategies (Cognitive Organizer--CO, Structured Overview--SO, and Directed Reading Questions--DRQ) had on improving (a) content comprehension and (b) literal, inferential and total reading skill comprehension. The study attempted to determine whether each strategy had an impact in individual comprehension areas. The study also investigated the impact of the three strategies within the categories of race, sex, and age.

It was hypothesized that there would be a statistically significant difference in the content comprehension change, the literal reading skill change, the inferential reading skill change, and the total comprehension change (from pretest to posttest) between the experimental groups (CO, SO, and DRQ) and the control group.

Eighth grade junior high school students in a predominantly black school were randomly selected and assigned to three treatment groups (CO, SO, and DRQ) and a control group.

Three major hypotheses which related to each general hypothesis were formulated. In each instance the impact of one of the three prereading strategies on an aspect of comprehension was investigated. Three subhypotheses which measured individual strategy impact variations for categories of race, sex, and age were investigated for each major hypothesis.

The investigator conducted the study in the following manner: (1) Pretested each group in literal, inferential, and total reading comprehension skill areas using the Brown Level Form A of the comprehension subtest of the *Stanford Diagnostic Reading Test*. (2) Introduced each treatment group to ten (one per week) assigned prereading strategies before a reading of ten selections from the *SRA Dimensions: Countries and Cultures* kit. A control group read the same selections but received no strategy treatment. Each group received an immediate comprehension pretest from the kit after reading each selection for retention measurement. (3) Posttested each group in the literal, inferential, and total reading comprehension skill areas using the Brown Level Form B of the comprehension subtest of the *Stanford Diagnostic Reading Test*. (4) Posttested two weeks after treatment with a comprehension test composed of items from the immediate content comprehension pretests.

T-tests were used to statistically test the four general hypotheses and the major and subhypotheses which were concerned with the significant differences in change from pretest to posttest scores for (a) content comprehension and (b) literal, inferential, and total comprehension reading skills. The statistical criteria for acceptance or rejection of hypotheses was the .05 level of significance.

The hypotheses regarding change in literal, inferential, and total comprehension skills were rejected and only the hypothesis regarding change in content comprehension was confirmed.

This study indicated that the tested prereading strategies improved content comprehension. In particular, the Structured Overview impacted this comprehension area. Another significant finding was that the personal characteristics of students influenced the impact of the prereading strategies on content comprehension and literal, inferential, and total reading comprehension skills.

THE EFFECT OF ADVANCE ORGANIZERS ON EXPOSITORY PASSAGE RECALL BY LEARNING DISABLED AND NONDISABLED YOUNGSTERS

Order No. 8123268

EDGAR, SUSAN ELIZABETH, ED.D. *Columbia University Teachers College*, 1981. 133pp. Sponsor: Professor Margaret Jo Shepherd

This study was designed to examine the effect of categorical advance organizers on expository passage recall by learning disabled and nondisabled students. Also of interest was the identification of other independent variables influencing expository passage recall performance.

The pretest-posttest control group experimental design utilized 40 nondisabled and 30 learning disabled fourth, fifth, and sixth graders from a suburban New York public school district. Statistical analysis indicated that the subject groups differed significantly in terms of IQ and achievement test scores, with superior scores consistently attributed to the nondisabled group. The groups did not differ in age.

Stimulus materials for the experimental task included two written expository passages of comparable difficulty. The passages

described the appearance, eating habits, living environment, and general behaviors of an animal, either the duckbill platypus or the sloth. The facts presented in each story were organized into paragraphs according to category. Presentation of the passages was counterbalanced for pretest and posttest phases.

During the pretest phase, the selected passage was read to and then read by each student. Students were directed to learn the facts in the story for later recall. Free recall was recorded for two separate recall trails, each following study periods of two minutes. Subjects from each group were subsequently ranked on the basis of their pretest trial 2 recall scores and assigned from blocks of two to either the advance organizer or the practice (control) condition. Statistical analysis confirmed the equivalence of treatment condition assignments within each subject group.

For students in the practice condition, posttest procedures repeated the pretest procedures in which students were directed to learn the facts for later recall. Students in the advance organizer condition received a verbal advance organizer prior to each study period. The organizers identified the four categories of facts embedded in the passage and instructed the students to keep the categories in mind while studying. Category cue cards were provided as an additional study aid. Posttest trial 1 and trial 2 recall was measured following two minute study periods. Pretest and posttest procedures also included probes to determine each subject's related background knowledge and awareness of passage structure.

Results of statistical analysis pointed to a facilitative although nonsignificant effect of the advance organizer for both learning disabled and nondisabled students on trial 1. The strength of this advantage, however, appeared insufficient to withstand the positive effects of practice between trials from which students in both treatment conditions benefited. Although nondisabled students consistently recalled more facts than learning disabled students, the effect of the advance organizer did not differ between groups. These results are best interpreted in light of a probable interaction between treatment and materials. It is suggested that the categorical organization of the stimulus passages was sufficiently evident to function as an organizer for students in the practice condition, particularly during the second recall trial.

Supplementary analysis identified IQ and average reading speed scores as the best predictors of recall performance. For the purposes of interpretation, both variables are viewed here as surrogates representing a complexity of cognitive variables.

The implications of the present study call first for additional advance organizer studies which investigate recall performance by learning disabled and nondisabled students. Careful examination of the interactions between treatment, materials, and trials is needed. If such studies prove their effectiveness, advance organizers may provide teachers with a valuable instructional technique for improving recall performance by learning disabled students.

THE STRATEGIES READERS EMPLOY IN COMPREHENDING EXPOSITORY AND NARRATIVE TEXT OF DIFFERING LENGTHS

Order No. 8117742

FARR, PI ADDIE, ED.D. *The University of Arizona*, 1981. 184pp. Director: Kenneth J. Smith

This study was undertaken to gain a greater understanding of what readers do to comprehend expository and narrative text. Specifically, 24 randomly selected good tenth grade readers used various strategies to comprehend both an expository and narrative selection. The selections assigned to them were from a group of 12 earth science and 12 short story selections, both groups randomly selected, presented in units of the following sequence and length: 400-, 250-, 100-words, and 10-sentence lengths. Students read silently and their "thinking aloud" in regard to their silent reading provided the basis for strategy identification and for the development of a strategy classification system which included four major categories of print-oriented, explicit and implicit message-oriented, and integrative-evaluative strategies.

Descriptive and statistical comparisons among strategies were analyzed in terms of these four major categories. These comparisons offered strong evidence that readers used a variety of strategies within and across text types, since strategy use was investigated in relation to multiple texts. Differences were noted, however, in the frequency and proportion of strategies used between the two text types. For instance, readers used a greater frequency and proportion of strategies in reading narrative compared to expository text. Statistical significance at the .01 level was also shown for frequency and proportion of implicit message-oriented strategies used in reading narrative compared to expository text. Differences were detected in frequency and proportion of strategies used in relation to the length of unit read. Predominant patterns of individual reader's strategy use were noted for each of the text types and for the text types combined.

Results of this study suggest several implications for further research. First, a study of the effect of other differing types of text on readers' strategy use is needed to clarify and specify readers' strategy use in comprehension. Secondly, a comparison of strategy use of good with poor readers in regard to differing types of text is required to identify strategies used by different types of readers. Thirdly, an investigation into the developmental aspects of readers' strategy use in regard to differing types of text needed to provide insights into the ways in which strategy use is acquired and modified. Fourthly, a comparison of readers' strategy use in regard to text presented in varying lengths is needed to better explain the relationship between reader comprehension and length of text read.

THE EFFECT OF VOCABULARY-RELATED CULTURAL DIFFERENCE ON INFERENTIAL COMPREHENSION BETWEEN BRITISH AND AMERICAN STUDENTS

Order No. 8127200

FORSYTHE, SANDRA JOHNSON, ED.D. *University of Arkansas*, 1981. 154pp. Major Professor: Dr. William Klingele

The purpose of this study was to investigate the possibility of existing differences between British and American students' inferential reading comprehension when both the British and American students attended an overseas American school. The study investigated the possibility that the difference in vocabulary that exists between British-English and American-English may serve as a determent to a British student's ability to comprehend American textbooks when in competition with an American student.

The subjects were matched pairs of British and American students from grades two through nine. The British and American subjects were matched on age, sex, grade, reading level, intelligence quotient and socioeconomic status. There were ten primary school British and ten primary school American subjects; thirteen middle school British and thirteen middle school American subjects; eight junior high British and eight junior high American subjects. The British subjects had to have just entered an American overseas school after being previously educated only in the British system. The American subjects had to have always been educated in an American curriculum school.

The instruments used in the study consisted of three sets of British and American passages, one set for each level, primary, middle school and junior high. The passages were taken from British and American textbooks and were of like theme at each level. Inferential questions were constructed for each passage.

After being selected for the study, the British and American subjects were given a warm-up exercise and then given the passage of the other culture to read and to respond to the questions. The British and American subjects were then given the passage using the vocabulary of their own culture to read and to respond to the inferential questions.

After a four month interval, the British and American subjects were placed in a posttest situation. The identical passages and procedures were used.

The inferential answers were then evaluated by British and American judges. Each judge was given a packet containing instructions, the passages and questions, the responses of twenty or twenty-two matched British and American subjects and a rating scale. The rating scale ranged from 0 to 5 and showed degrees of inference from 0, or totally incorrect response, to 5, or extremely inferential or logically concluded response. The judges rated each response and then averaged the totals for each subject.

The eight hypotheses and four questions generated by the researcher were tested by the dependent t-test for correlated or matched pairs. The significance level was set at .05.

The study revealed that there was no significant difference in inferential reading comprehension as rated by the judges for the entire group of primary, middle school and junior high British or American subjects when compared to each other on the pretest or posttest of either the British or American passages. There were significant differences for individual groups, that is, primary, middle school or junior high, on certain of the pretests or posttests of the British or American passage.

Actual mean growth was observed in all groups from pretest to posttest with the exception of the primary American subjects on the American passage. The range of inference accorded by the judges to the answers was from concrete or literal to moderately inferential.

The serendipitous implication coming from the study was the apparent loss of influence of British-English vocabulary on the part of all the British subjects from pretest to posttest of the British passage. This finding generates a need for replication of the study to be done in a British overseas school(s) that has both British and American students in attendance.

A COMPARISON OF THE EFFECTS OF VERBAL ELABORATION ON THE RECALL OF SKILLED AND LESS SKILLED READERS

Order No. 8125481

FRENCH, VALARIE WILLIS, ED.D. *Harvard University*, 1981. 83pp.

The comprehension and recall performances of upper elementary skilled and less skilled readers can be improved by the use of memory strategies. Strategies are deliberate activities evoked by an individual to aid in the storage and subsequent retrieval of information. Researchers report that same aged skilled and less skilled readers can use strategies to increase item recall, but less skilled readers do not always achieve recall scores equal to skilled readers' scores. Furthermore, less skilled readers are less likely than skilled readers to spontaneously produce an appropriate memory strategy.

Comparisons of skilled and less skilled readers' recalls have examined, primarily, the effects of relatively simple serial rehearsal strategies such as labeling and repetitive rehearsal. The purpose of the study was to examine the effects of a more complex verbal memory strategy on the recall of upper elementary grade skilled and less skilled readers. Verbal elaboration has been defined as the identification of a common referent among unrelated items. Three types of "prompts" which vary in the degree of associative structure provided by the experimenter have been reported. An augmented prompt provides semantic associations among to-be-remembered items (e.g., NAIL rips BUCKET). An explicit prompt provides directions to generate associations among items. A minimal prompt provides the items but neither associations nor directions to generate associations. Generally, adults benefit most from explicit and minimal prompts, while primary grade children benefit most from an augmented prompt. Reports of prompt type effects on the serial recall of upper elementary grade skilled and less skilled readers have been inconclusive. Same aged reading achievement groups do not consistently benefit from the same or from different prompt types. Inferences of the possible effects of augmented, explicit, and minimal prompts may be drawn, however, from reports of story recall, sentence recall, and serial recall studies, respectively.

The task designed for the study was to recall three lists of nouns in correct serial order. Twenty-four skilled and twenty-four less skilled fifth grade readers were randomly assigned to one of three prompt conditions. In the augmented prompt condition subjects were directed to learn lists of words in the context of thematically related sentences. In the explicit prompt condition subjects were directed to generate contexts for list words. In the minimal prompt condition subjects were directed to learn lists of isolated words. Recall protocols were scored for the number of words recalled and for the number of words recalled in correct serial order. Two way analyses of variance revealed that the effects of the two factors, prompts and reading achievement level, were significant for both dependent variables. No interactions were significant. Post hoc analyses of means revealed that the augmented and explicit prompt means were significantly different from the minimal prompt means but not significantly different from each other.

The results indicated that skilled and less skilled readers can respond in similar ways to a complex verbal strategy. The development of metamemory and linguistic processing skills were discussed as possible sources of difficulty for less skilled readers in the augmented and explicit prompt conditions. Suggestions for reading practice included the use of verbal elaboration instructions in teaching reading comprehension generally, and particularly in teaching vocabulary words. Suggestions for future research included comparisons of more discretely defined groups of skilled and less skilled readers and examination of the impact of passage difficulty on the effectiveness of verbal elaboration.

READING PERFORMANCE AS A FUNCTION OF AUDITORY SEQUENTIAL MEMORY, ANXIETY, AND AGE/GRADE LEVEL

Order No. 8118833

GARRETT, SHERRYE DEE, ED.D. *Lehigh University*, 1981. 92pp.

The purpose of this study was to investigate the relationships between reading, auditory sequential memory, anxiety, and age/grade level. Reading is a complex cognitive-linguistic act in which the reader extracts meaning from extended discourse. However, for the purposes of this study, reading is defined as word recognition and word analysis as measured by the Daniels Word Recognition Test. Reading, defined as word recognition and word analysis, was measured with the Daniels Word Recognition Test. Auditory sequential memory, the ability to reproduce sounds immediately and in correct sequential order, was measured by performance on the Digit Span subtest of the Wechsler Intelligence Scale for Children-Revised edition, and on the Related Syllables test of the Detroit Tests of Learning Aptitude. Two forms of anxiety were identified; trait anxiety, a general predisposition to become anxious, and state anxiety, the anxiety related to a specific stressful situation. Both anxiety types were measured with the State-Trait Anxiety Inventory for Children (STAIC). Grades two and four were included in the study; age was measured in months. A total of 259 students were selected from three elementary schools. Data were collected in three testing sessions at each school. All tests were individually administered.

Positive correlations were found between both reading measures and both auditory sequential memory measures. Positive correlations were also found between age and auditory sequential memory. Related syllables measures showed a stronger correlation with age than did digit span measures. Negative correlations were found between reading and state anxiety and between auditory sequential memory and trait anxiety. No correlation was found between age and anxiety. Combinations of trait anxiety, state anxiety for reading and memory, and auditory sequential memory measures were shown to be significant predictors for word recognition and word analysis. Interactions between auditory sequential memory and state anxiety did not add significantly to the prediction equations. No differences were found between grades for any individual predictor variables. Auditory sequential memory was found to be a significant factor in reading performance. It was suggested that an auditory sequential memory measure be included in the diagnostic battery used by the reading specialist. The correlation between related syllables measures and age suggested that the related syllables measure would be more appropriate in the diagnosis of reading performance in older students. Children with low auditory sequential memory abilities should be identified early; appropriate measures should be taken to reinforce instruction with activities that involve visual, kinesthetic, and tactile modalities.

Lack of significance in some of the anxiety-related correlations was attributed to possible measurement problems with the STAIC. The STAIC scales were standardized as written measures; in the present study, the scales were administered orally so that possible reading problems would not interfere with a subject's understanding of the STAIC questions. Reliability figures for the data collected in the present study were somewhat lower than those reported by the authors of the STAIC.

Recommendations were made to extend investigation into the relationship between auditory sequential memory and a more comprehensive measure of reading that would include comprehension and vocabulary scores; to reevaluate the validity, reliability, and usefulness of the STAIC; and to widen research to include populations that reflect a broader age group.

META-TEXTUAL NOTIONS AND READING COMPREHENSION

GEVA, ESTHER, PH.D. *University of Toronto (Canada)*, 1981.

The structure of texts can be represented in tree-like hierarchies. In such hierarchies the nodes represent content units (i.e., propositions, clauses) and the lines connecting them represent the relations of these units to each other (local functions) or to the entire passage (holistic functions). These relations may include functions such as topic sentences and conclusions (at the holistic level) and functions such as causal relations, process descriptions, details, examples and elaborations (at the local level). It is argued here that one of the factors that operate in the contact between one's knowledge on a topic and information in the text is knowledge of text structure. This knowledge operates both in applying various skimming strategies, and when a text is read carefully.

The purpose of this study was to examine the instructional potential in training less skilled readers to use more efficient top-down strategies. In order to train less skilled readers to pay closer attention to structural-cohesive aspects of texts, students were taught to represent both prior knowledge and text structure in flowcharts. It was hypothesized that teaching less skilled readers to represent text information and prior relevant knowledge in flowcharts would result in improvement in reading comprehension.

To test the validity of this conjecture tw training studies were conducted. Subjects were students from 2 munity colleges. A pretest-posttest design with controls was employed.

Students were taught to recognize Text nit Functions (TUFs) and represent expository factual paragraphs in flowcharts. They also performed tasks in which the logical-structural role of conjunctions was highlighted. Control students were exposed to speed drills and commercial reading comprehension packages.

Forty-eight students took part in study 1. Training lasted for 6 weeks. There was a significant partial correlation between the Nelson Denny comprehension posttest scores and the percent of correct TUFs represented by students (controlled for the respective pretests) ($r = .56$; $p < .02$). There were no experimental-control differences in the rate of improvement on the Nelson Denny. Yet, there were differences in emphasis. Students in control groups showed a tendency to gain in speed at the expense of

comprehension. Students in the experimental groups showed a tendency to gain in comprehension at the expense of speed.

Forty students assigned to high or low instructional groups on the basis of the California Achievement Test scores, participated in Study 2. Training lasted 4 weeks.

An analysis of covariance on the Nelson Denny posttest yielded a significant class level treatment interaction ($F = 6.30$; $p < .05$). The most pronounced improvement took place in the low experimental group. The analysis of covariance on a comprehension test, designed to measure students' sensitivity to interpropositional relations (Either-Or), yielded a significant treatment main effect ($F = 6.19$; $p < .05$). Both low and high experimental students did better than control students on this test.

Analysis of sample protocols showed that students' knowledge of TUFs was not complete prior to training. For instance, some showed the "order of mention pitfall" in causality. There were qualitative changes in the flowcharts produced by experimental students.

The experimental results and the conclusions drawn from the protocol analyses are seen as supporting the theoretical notion that some readers are not processing texts hierarchically, and that this contributes to lower comprehension scores. It is argued that the experimental intervention provided students with skills for analyzing texts hierarchically, forcing them to consider carefully how text propositions are interrelated.

THE ROLE OF SCHEMATA IN MEMORY FOR PROSE AS A FUNCTION OF COGNITIVE AND SOCIAL DEVELOPMENT

Order No. 8121306

HANSON, ANTOINETTE RAY, ED.D. *University of Houston*, 1981. 79pp.

The purpose of the present study was to investigate how children of different levels of cognitive and role taking development utilized schemata in comprehension and memory of prose. The literature suggests that adults can adopt a particular schemata for comprehending and recalling a passage when instructed to do so. Further, the schemata used determined what of the incoming information was important, and those elements rated as more important were recalled better. When subjects were asked to shift to a second perspective, the results of the second recall test indicated that subjects were able to recall additional, previously unrecalled information following a shift in perspective. Evidence of these abilities among children is limited and conflicting.

Seventy-six subject (29 first graders, 21 second graders, and 26 third graders) participated in this study. Subjects' levels of cognitive and role taking development were tested using Piagetian measures of conservation, and the Flavell picture role taking task, and the Burns and Cavey role taking measure, respectively. During a second session, subjects were asked to recall a story from a randomly assigned perspective. Half of the subjects were then instructed to shift to a new perspective and recall the story once again, while the remaining subjects were reminded of their original perspective and asked to recall the story a second time.

The results of the various analyses included in the present study provide additional support for the utilization of schemata in the comprehension process. That subjects can be induced to invoke a particular schemata for comprehending a passage is evident from the results. Subjects' recall of text elements important to a particular perspective supported the contention that the schemata that the reader brings to the text determines the importance of text elements and that those elements determined to be more important are recalled better than items of low importance. However, as the present evidence indicates, it is the subjects' levels of cognitive and role taking development which are predictive of these abilities. It would appear that the memory schemata function as subschemata of general cognitive developmental level.

When a shift to a second perspective was required, only those subjects with sufficient cognitive and role taking development were able to utilize the additional schemata to facilitate recall. The present study provides a possible explanatory mechanism by which utilization of schemata in comprehension and memory of prose may be predicted and explained.

THE EFFECTS OF VISUAL AND MOTOR SUPPLEMENTS ON PRESCHOOL CHILDREN'S COMPREHENSION AND RECALL OF PROSE

Order No. 8122018

HATHAWAY, BETTY KAY, PH.D. *Kansas State University*, 1981. 76pp.

It has been well established that preschool children, 3 to 5 years of age, have limited symbolic-conceptual skills in comparison to schoolage children. One line of evidence for these limitations comes from paired associate learning (PAL) research on children's memory, indicating immature cognitive structures and product deficiencies in the recall strategies of preschool children. However, PAL research has also demonstrated dramatic increases in the memory of preschool children when verbal presentations are supplemented with visual and motoric elaborations of the word pairs, i.e., elaborations which visually portray interactions between the stimulus pairs, or permit motoric manipulations of 3-dimensional representations of the verbal stimuli. Furthermore, elaboration of verbal input by visual and motoric supplements appears to facilitate memory for more complex verbal input, such as sentences and stories, in school-age children. However, it is not known whether these elaborative strategies will facilitate preschool age children's comprehension of and memory for prose material.

The present study focused on (1) preschoolers' comprehension of prose, defined as memory for literal verbal input (explicit story information), as well as semantic content (implicit story information), and (2) the value of visual (dynamic and static) and motoric elaboration for memory of verbal input.

Methods and Procedure. Eighty children, 3½ to 5½ years, were assigned to one of five experimental conditions:

Read (R)	- Child listens to story.
Read-Read (RR)	- Child listens to story. Child listens to story again.
Static (S)	- Child listens to story. Child looks at 3-dimensional props illustrating the story, in random arrangement.
E-Manipulate (E-M)	- Child listens to story. E manipulates props to illustrate events in the story.
S-Manipulate (S-M)	- Child listens to story. S manipulates props to illustrate events in the story.

Children were presented two question sets (Set A, Set B) immediately following the story and 48 hours later. Each set contained 20 questions, 10 based on details stated in the story (explicit), and 10 requiring meaningful integration of separate story statements (implicit). Order of presentation of question sets was counterbalanced.

Results. A repeated measures ANOVA on condition (R, RR, S, E-M, S-M), age (3½ to 4½, 4½ to 5½), sex, question order (Sets A and B), and retention interval (immediate and 48-hour delay) was run on explicit, implicit and total scores.

Total scores. Significant main effects for combined scores were found for age ($p < .01$) and condition ($p < .01$). Older children consistently outperformed younger children, and children in conditions E-M and S-M exhibited superior recall to those in the R condition. Furthermore, the beneficial effects of dynamic visual and motor elaborations on preschool children's comprehension and recall of prose material were constant across the two ages, sexes, question sets and retention intervals.

Explicit and Implicit scores. Recall scores for explicit information in the E-M and S-M conditions significantly exceeded those in the R and RR conditions for younger children, while older children benefited significantly from the RR condition as well. In terms of implicit content scores, recall by children in the E-M condition was superior to that of children in the R and RR conditions on the immediate recall test, while on the delayed recall test, scores in the S-M condition exceeded those of the R and RR conditions. In addition, the recall of the older children was once again superior to that of the younger children.

These results indicate that dynamic visual and motoric elaboration of prose facilitates preschool children's memory for explicit story details, as well as their comprehension of information implicit in the story.

CHILDREN WITH A PERSEVERATIVE TEXT INTERPRETATION STRATEGY: THE EFFECT OF TEXT ORGANIZATION

Order No. 8125327

KIMMEL, SUSAN, PH.D. *Columbia University*, 1981. 123pp.

The purpose of this study was to demonstrate that there is a group of children with a reading comprehension disability who can be characterized as perseverative in their text processing strategy, and to explore the effect of this strategy on the comprehension and recall of text. A second purpose was to show that certain text organizational structures frequently used in writing for children are especially difficult for this group of readers to comprehend.

In an initial group screening, 255 fifth- and sixth-grade students were given 48 short paragraphs to read. Half of the paragraphs were deductively structured so that the main idea came first and details followed, and half were inductively structured, so that the main point of the paragraph came towards the end. The paragraphs were taken from published reading texts at approximately fourth-grade level. Following each paragraph, the students answered a multiple choice question asking about the main idea of the paragraph. Sixteen students (the perseverative group) who had the lowest regressed standard score on the inductively structured paragraphs relative to their own regressed standard score on the deductively structured paragraphs were selected for further study. These subjects were matched with 16 subjects (the comparison group) who performed as well on the whole but who showed no such differences on the two types of structures.

The two groups of subjects were given four tasks in individual sessions. Task 1 consisted of 12 paragraphs constructed with the intent of misleading readers who tend to perseverate in applying an initial text interpretation, each followed by a multiple-choice question about the main idea. Task 2 consisted of eight inductively structured paragraphs that subjects were asked to read and recall. Task 3 consisted of a 24-item adaptation of a "children's word-finding test." Twelve of these items were written in an "inductive" version in which the most criterial attribute statement came last and 12 were written in a "deductive" version in which the most criterial attribute statement came first. Task 4 measured reading rate on four inductively structured paragraphs and four deductively structured paragraphs.

The results of the study indicated that subjects who had the largest difference score on the group screening test performed on all subsequent tasks as if they were using a perseverative text interpretation strategy. Results of a reading time analysis indicated that perseverative group subjects were not simply reading paragraphs so quickly that they read the beginning of the text and ignored the rest of the information. The results of the recall analysis indicated that subjects in the two groups tended to recall about the same amount of information, but comparison group subjects tended to recall more words that signaled the contrast between the early portions of the inductively structured paragraphs and the later statements of the main idea. The children in the perseverative group scored relatively low on the inductively structured word finding items, even though all word finding items were read aloud to the children.

The types of paragraph structures that tend to mislead children who use perseverative text interpretation strategies are commonly found in material that children are expected to read in school. Once children who use these inefficient strategies are isolated, it is likely that they can be taught to use more flexible strategies and learn to evaluate their initial hypothesis as they continue reading.

AN INVESTIGATION OF THE EFFECTS OF LITERAL AND METAPHORIC TITLES ON GOOD AND POOR READERS' COMPREHENSION OF TEXT

Order No. 8116496

KRAUS, CATHERINE ANNE, PH D. *University of Maryland*, 1980. 137pp. Supervisor: Dr. Ruth Gerner

The effects of metaphoric and literal titles on good and poor comprehenders' understanding of text were investigated. These variables were focused upon to determine if: the processing of metaphoric language parallels that of literal language; good and poor readers differ in their success with metaphoric interpretation; the complexity of metaphor affects metaphoric comprehension. Thirty good and 30 poor sixth grade comprehenders from urban and suburban parochial schools of the Archdiocese of Washington, D.C. predicted story content from either metaphoric or literal titles through a multiple-choice response. After reading the passage which followed, subjects confirmed or disconfirmed their prediction through the same type of response. False recognition sentences and topic-vehicle relationship tasks were used to determine comprehension of the metaphoric title. This four-task procedure was repeated three times to accommodate three levels of metaphor based on a graduated number of vehicles in the titles. Chi-square analysis, used throughout the study, revealed significant differences in the title treatment for the false recognition task in favor of the literal title. Most of the subjects who had metaphoric titles selected the semantically acceptable sentences expected as the responses of the literal title group, rather than those which contained a simile related to the metaphoric title. In this study, the sentence memory strategy did not prove effective in determining metaphoric understanding. Significant differences were also found between good and poor comprehenders on the prediction-confirmation/disconfirmation and topic-vehicle relationship tasks. In both cases the advantage was with the good comprehenders. Many poor comprehenders predicted the literal interpretation from metaphoric titles and confirmed this idea of story content despite the passages' meaning. This same group also performed poorly when required to give the relationship between the supplied metaphoric title and specified topics from the passages. The significant difference found for levels of metaphor is questionable. Scoring protocol for the topic-vehicle relationship task determining this difference, made accurate, non-inflated statistical analysis impossible. Possible explanations of the outcomes of this investigation, their relationship to other metaphor-related research and the implications for theory, research and classroom practice are discussed in some detail.

THE EFFECT OF TOPIC SENTENCES AND THEIR PLACEMENT ON THE READING COMPREHENSION OF GROUPS OF ACHIEVING ELEVENTH GRADE MALE READERS

Order No. 8115891

KREIDER, KAREN BEECHY, PH.D. *Temple University*, 1981. 194pp.

The major purpose of this study was to examine the effect on reading comprehension of the presence or absence of topic sentences in paragraphs and to determine whether there was a most effective position for them. The four paragraph structures considered were: (1) topic sentence at the beginning, (2) topic sentence in the middle, (3) topic sentence at the end and (4) topic sentence implied but not stated. In addition to the effect upon a general population of college preparatory 11th grade students, the effect upon three groups of readers was explored. They were superior, average and difference readers. Difference readers were postulated by Cromer (1970) as readers having adequate intelligence and vocabulary skills but being unable to process text in an optimal manner. In this study they were readers whose reading comprehension was average but whose vocabulary knowledge was above average.

Null hypotheses predicted that there would be no significant difference in the reading recall of 11th grade readers, in general, nor in the reading recall of any of the three subgroups as a function of topic sentence placement. The implication in the design was that the three types of readers would be differentially affected by topic sentences. Superior readers were expected to be relatively unaffected by topic sentences, average readers were expected to be moderately affected and difference readers were expected to be most sensitive to variations in topic sentence placement.

This investigation was conducted in 1978. Stratified sampling was done to select 111 11th grade students from the 335 11th grade students in an all male academic high school in Philadelphia, Pennsylvania. The stratification criteria were reading ability and test form. Subjects ultimately chosen for inclusion in this study were classified as superior, average or difference on the basis of their scores on the Vocabulary and Reading Comprehension subtests of the *California Achievement Tests*, Level 5, Form A. Superior readers scored within the 90th and 99th percentile range and average readers scored within the 32nd to 79th percentile range on the subjects. The comprehension scores of the difference readers were in the same range as the average readers but their vocabulary scores were at or above the 84th percentile.

A 16 paragraph passage about a fictitious African country (Rickards, 1972) served as the experimental material. Each of the 16 paragraphs was rewritten in four ways: with the topic sentence at the beginning, in the middle, last and implied. Four test forms combined four examples each of the four paragraph structures. A free recall test was administered and scored for the recall of three dependent variables: (a) superordinate main ideas; (b) subordinate details and (c) total idea units.

Data were analyzed using the multivariate analogues to a one way analysis of variance and a 3(type of readers) x 4(position of topic sentence) analysis of variance with repeated measures on the last factor. Additional analyses were done using univariate analyses of variance.

The results of the analyses indicated a main effect for topic sentence position for all groups of readers for recall of main ideas. There was no significant effect for topic sentence position in the recall of details. No interaction was found between type of reader and topic sentence position in the primary analysis although secondary analyses suggested a pattern of differential effects. The comprehension of superior, average and difference readers was not significantly different when topic sentence were in the first and last positions.

It was concluded that topic sentences in any position do improve reading comprehension, particularly of main ideas. Cromer's hypothesis that some readers are aided proportionately more by the imposition of an organizational structure, in this case a topic sentence, was given limited support.

THE EFFECTS OF STUDENTS' MEANING PERCEPTION AND TEXTUAL STRUCTURING UPON THE COMPREHENSION OF SOCIAL STUDIES READING PASSAGES

Order No. 8116883

LESOURD, SANDRA JO, ED.D. *University of Georgia*, 1981. 180pp. Director: Mary A. Hepburn

There is a lack of attention to the role which language plays in school learning in the social studies content area. Yet much of social studies instruction is highly verbal, and student success depends upon language skill. A critical task for the learner is the comprehension of content through textual exposition.

Three issues relative to reading comprehension were chosen for research attention in this study. First, does the student's perception of the meaning of selected social science concepts affect the student's comprehension of social science textual material which explicates the concepts? Second, does the structuring of social studies textual material in accordance with a concept learning model affect the student's comprehension of the material? Third, does the structuring of social studies textual material in accordance with a concept learning model interact with the student's meaning perception or the student's reading aptitude to affect comprehension of the material?

An investigator constructed semantic differential instrument containing five political science concepts was used to measure meaning, and subjects were divided into two meaning groups (good-strong-active and neutral) on the basis of their response. Scores on a standardized reading test were used to assign subjects to one of three reading aptitude groups (good readers, average readers, and poor readers).

Two textual passages explicating a political science concept were written for the study. The Narrative Model, written without an organizing schema, was designed to typify social science textbook content. The Concept Model, written in accordance with a deductive concept presentation strategy, was designed to demonstrate a different method of textual structuring. A 30-item multiple choice test was constructed to measure reading comprehension.

Two experimental posttest-only control group designs were used for the investigation. A 2 x 2 factorial design was used to assess the effects of meaning and treatment upon comprehsion. A 2 x 3 factorial design was used to assess the effects of reading aptitude and treatment upon comprehension. Group means were compared within each level of the meaning and reading aptitude factors to assess their interaction with the treatment.

Students in ninth grade courses in two urban high schools responded to the semantic differential and took the standardized reading test. Students were assigned to the Neutral or the Good-Strong-Active meaning group on the basis of their semantic differential mean score. Students were assigned to the Good Readers, Average Readers, or Poor Readers aptitude group on the basis of their standardized reading test score. Some semantic differential and reading test scores were eliminated to equalize cell sizes in each design. An N of 100 was used in the 2 x 2 design and an N of 180 was used in the 2 x 3 design. One-half of the subjects in each meaning group and in each reading aptitude group were asked to read the Concept Model, while the other half read the Narrative Model. The students who read the Concept Model formed the experimental group, and those who read the Narrative Model formed the control group.

Two analyses of variance were used to measure the main effects of meaning and treatment. T-test comparisons were performed to measure the treatment effect within meaning and reading aptitude groups.

The meaning variable was not found to have a significant effect upon comprehension. Within meaning groups, the text structuring variable was significant (.001) for students in the neutral meaning group, but not for those in the good-strong-active meaning group. The statistical analysis revealed a significant gain (.001) in comprehension scores for the experimental group who read the Concept Model. Within reading groups, the text structuring variable was significant (.001) for good and average readers, but not for poor readers.

THIRD GRADE READERS' USE OF PRIOR KNOWLEDGE IN INFERENTIAL COMPREHENSION

Order No. 8116285

LIPSON, MARJORIE ANN YOUMANS, PH.D. *The University of Michigan*, 1981. 214pp. Chairman: Scott Paris

As people read they attend to the meaning of the text. Afterwards, they can recognize and recall information that was explicitly presented, but they also learn and remember material that was not explicitly presented--information that was inferred from the text.

This study was concerned with children's ability to learn new information from text. It investigated the extent to which average and poor readers could recognize and recall explicit and inferred information after reading or listening. The study also examined how prior knowledge, readability level and mode of presentation affected children's reading comprehension.

Twenty-eight third grade students constituted the sample for this study. A yoked-pairs design was used with each average-poor reader pair matched on the following variables: sex, age, IQ, math achievement, and school. Each child was tested twice. The first session was designed to assess the subjects' prior knowledge of the topics to be presented in the second session. The session included a presentation of the recognition items for posttesting and a conversation about the eight topics. Approximately a week later, each subject read aloud four expository passages and listened to four passages. After each passage, the subject selected the best answer to each of six paired-sentences. Each set of six statements included two explicit and four inferential items.

The total number of correct responses was computed for each subject, ability group, passage, and type of recognition statement. These scores were subjected to a series of analyses of variance tests. Neither readability level nor mode of presentation was a significant factor in subjects' performance. However, the type of recognition item did affect performance. Subjects recognized more explicit than inferential information. Within inference types, events and causal inferences were more difficult than goal or attribute inferences. There was no main effect for group in any major analysis. It was suggested that previous studies in which group differences were found may have confounded reading ability with other factors such as overall achievement or IQ which were controlled in this study.

To examine the relationship between prior knowledge and reading comprehension, the pre- and post-scores were converted to conditional probabilities and subjected to a series of analyses of variance tests. The probability of a correct response was computed for three different prior knowledge conditions: (1) correct, (2) wrong, or (3) unknown. These procedures permitted investigation of the effect of prior knowledge on subjects' acquisition of new information. In addition, subjects' ability to correct old information was examined.

These analyses showed that prior knowledge was a powerful factor in reading comprehension. Subjects were most likely to get a correct answer at posttesting when the pretest had been correct.

More importantly, subjects were more likely to get an item correct when they did not know the information at pretesting than if they had been wrong at pretesting. This finding suggests that subjects relied more heavily on prior knowledge than they did on text. Even when prior knowledge was contradicted by the text, subjects used it, rather than textual information, for item recognition. Only when they did not (or believed they did not) possess the necessary prior knowledge did they resort to text--with a consequent improvement in recognition.

It was concluded that both average and poor readers use inferences in comprehending textual materials, although some inference types are more difficult than others to recognize. In addition, a child's prior knowledge is a powerful source of reading comprehension and mis-comprehension. Both groups were better at acquiring totally new information than at correcting old information that was wrong.

AN EXPERIMENTAL STUDY OF THE EFFECTS OF PICTURES ON THE LITERAL COMPREHENSION OF SECOND GRADE READERS

Order No. 8120512

MACKENZIE, JANE IRONS, ED.D. *Ball State University*, 1981. 192pp. Adviser: Dr. J. David Cooper

The purpose of the study was to investigate the effect of pictures on the literal reading comprehension of average second graders. The study attempted to discover whether or not there were differences in comprehension when second graders read in three alternative reading conditions: text without pictures (T), text with pictures (TP), and a page of text alternating with a picture page (TAP). The study also attempted to discover whether possible differences in comprehension were more significant for either average or above-average readers.

In order to measure differences in amount of comprehension in the three reading conditions, the researcher constructed an instrument consisting of three comparable passages, pictures corresponding to the passages, and ten questions covering the content of each passage. Each subject was asked to read three different passages in three different reading conditions. The ten questions were asked after each of the passages was read. The scores from the comprehension questions became the raw data of the study.

The data were analyzed in 3 x 3 x 2 Factorial Analysis of Variance. The factors were reading condition with three levels (T, TP, and TAP), three orders of presentation of the passages, and reading ability with two levels (average and above-average readers).

Results indicated that all subjects comprehended equal amounts of content in the three reading conditions ($F = .34$ at .71 probability). Further, both average and above-average readers were equally unaffected by the presence of pictures in their reading materials ($F = .17$ at .84 probability).

An implication of the study is that teachers should clarify their reason for using pictures in beginning reading instruction. Although pictures may prove to be helpful in fulfilling various affective instructional purposes such as building interest in reading, the pictures do not seem to be a valid method of increasing literal reading comprehension.

AN INVESTIGATION OF THE RECOGNITION OF SIDEDNESS IN THE READING MATERIAL OF SIXTH GRADE STUDENTS

Order No. 8117306

McNeal, Errol William, Ed.D. *State University of New York at Buffalo*, 1981. 104pp.

Objective. This study attempted to determine if sidedness, as a factor within the content of reading material, can be recognized by sixth grade students; that is, can sixth grade learners detect whether expository reading material is one-sided or two-sided. For the present study, sidedness has been defined as the presentation of one side or two sides of an issue in expository reading material. The side(s) represented is (are) usually in the form of persuasive arguments.

It was hypothesized that: (1) students will be able to detect the presence of one-sided and two-sided messages in reading material; (2) general reading ability is related to the ability to detect the presence of sidedness in reading material; and (3) general intelligence is related to the ability to detect the presence of sidedness in reading material.

Subjects. The subjects used in this study were sixth grade students from two elementary schools in the Buffalo, New York school system. There were one hundred sixty-five students in the original sample. Four students were not administered all tests. The analyses were based on the one hundred sixty-one subjects who completed all tests. Although sex differences were not hypothesized, the sample consisted of seventy-five girls and eighty-six boys. The IQ range was from 57 to 130. Reading ability ranged from a grade equivalent score of 1.1 to that of 9.9.

Procedures. The data gathering consisted of sixty minute time segments administered by the experimenter. Subjects were given booklets which consisted of ten random orders of ten articles: five one-sided articles and five two-sided articles. Subjects were to read and respond to each of the articles accordingly. The specific instructions were made by the experimenter. The articles and test items were administered to seven sixth grade classrooms.

Findings. Hypothesis One. The results from the analysis of the pupils' abilities to detect the presence of one-sided and two-sided messages in reading material indicated a mean of 4.73 for the ten items ($t = 13.26$). *Hypothesis Two.* Pearson Correlation Coefficients indicated a correlation of .50 between the sidedness scores and general reading ability. *Hypothesis Three.* Pearson Correlation Coefficients between the sidedness scores and general intelligence indicated a relationship of .43.

Conclusions. Based on the results of the analysis of pupils' responses to the sidedness items, this study suggests that sixth grade students do have the ability to detect the presence of sidedness in reading material. General reading ability appears to be significantly related to the ability to detect the presence of sidedness in reading material. General intelligence also appears to be significantly related to the ability to detect the presence of sidedness in reading material.

GENDER CONFORMITY, TEXT CHARACTERISTICS AND COMPREHENSION OF STORIES

Order No. 8110671

Meyers, Ruth S., Ph.D. *New York University*, 1980. 106pp. Chairperson: Professor Lenore Ringler

This study was designed to explore the effect of sex, gender standards, sex of main characters and gender content of stories on reading comprehension. The research problem derives from a model of reading which posits active construction of meaning in which readers predict and confirm text. Within this paradigm, schemata or knowledge structures are hypothesized as being activated in the process of reading and comprehending text. Affective variables and a knowledge of conventions of text structure have been related to the formation of schemata. This is consistent with a model of reading that implies interaction amongst characteristics of readers and characteristics of texts.

The sample consisted of fourth grade youngsters in urban and suburban school settings. A *Sex Role Standards Checklist* was administered to measure a level of gender conformity. Stories were selected which had been rated by judges as being representative of basal reader stories. Two stories featured girls; two featured boys as main characters. One "girl story" and one "boy story" were adapted by exchanging the sex of the main character. These stories were used as the comprehension measure following a cloze procedure with exact and synonym scoring.

Treatment of the data involved an analysis of variance with repeated measures. The general hypothesis, comprehension of stories specifically related to gender content is in part a function of gender standards and sex of readers, was supported. Reading as being appropriate for females, and for males who do not conform to gender standards was supported. The data indicated that there appears to be a greater sanction against males appearing in female roles than against females appearing in male roles.

The effect of children's interest, as reported in the literature, was not supported by the study. The data suggested that knowledge of the structure of the female gender stories which follow the format and content of stories found in very early readers has a greater effect than interest on reading comprehension.

The study supported those psychologists and feminist theorists who speculate that low conformity to traditional sex roles and sex roles standards leads to adaptability in social and learning situations. The data indicated stereotypic expectations limit comprehension of less predictable materials.

In the process of imposing meaning on narrative text, children form schemata related to their previous experience with stories and to their perceptions of appropriate sex role behavior. Reading instruction is designed to guide children through increasingly complex story structures. The findings of this study suggest that if these more complex stories contained female as well as male characters, children could learn to transcend their sex role expectations.

INFERENTIAL LISTENING AND READING COMPREHENSION OF DISCOURSE IN NORMAL AND READING DISABLED CHILDREN

Order No. 8124962

Nahmias, Maria Lynn Vasiliw, Ph.D. *Northwestern University*, 1981. 209pp.

The purpose of this study was to explore the language listening and reading comprehension abilities of children. The study investigated inferential language comprehension for oral and written discourse and their relationships in reading disabled and normal children.

The study explored the question of whether learning disabled children with literal reading comprehension problems have difficulty in inferential listening and reading comprehension of expository discourse as compared with children with average to above average reading skills. Furthermore, the investigation was designed to explore relationships between listening and reading comprehension performance and the hypothesis that listening and reading comprehension are related via generic language comprehension processes.

Forty subjects were selected from a public school district. Twenty subjects were included in each experimental group, sixteen male, four female in each group. Subjects included in the experimental study were ten and eleven year old middle class students. Normal and reading disabled children were taken from the same fifth grade classrooms and were monolingual Caucasians. All subjects demonstrated average to above average verbal mental abilities. Word recognition skills were adequate for the readability level of the experimental materials and near or above fifth grade level. Reading comprehension scores on standardized measures of literal comprehension following silent reading of passages were average

fifth grade level or above for subjects in the normal reader group and at least one year or stanine below fifth grade level for subjects in the reading disabled group. Subjects' scores based on their responses to two kinds of comprehension questions with two levels of inference types following listening and reading of expository discourse passages were analyzed.

Results confirmed the hypothesis that learning disabled children with reading comprehension problems are deficient in their inferential listening comprehension as well as reading comprehension for discourse as compared with normal children. The scores of the reading disabled group were significantly lower than those of the normal reader group for inferential listening comprehension measures as well as inferential reading comprehension measures. Some evidence was also provided for the hypothesis that listening and reading are two modalities of a more generic language comprehension process. Listening and reading comprehension scores were highly correlated when all subjects were included in an analysis. The correlations were less significant within the reading disabled group and normal reader group of children. There were no significant differences between the listening and reading performance of all subjects combined and within the normal reader group. However, the reading disabled children displayed significantly higher listening comprehension than reading comprehension scores.

Significant differences were found between reading disabled and normal reader groups on Type A, Identification Inferences and Type B, Proposition Generation Inferences in both listening and reading comprehension modalities. In addition, for all subjects and within each group of subjects, significant differences were found between the two inference classes, with Type B inferences yielding higher performance scores than Type A inferences.

Performance on listening and reading comprehension questions entailing interrogative questions and yes or no verbal responses was better than performance on wh-type comprehension questions requiring free verbal expressive responses. This was consistent with the hypothesis of this research project and existing knowledge about learning disabled and normal children. Further, the findings indicated that there were differences between the reading disabled and normal groups on their listening and reading comprehension scores within each of the comprehension question types. All of the differences were significant, except that for yes/no questions on listening comprehension measures.

Further research into the relationships between listening and reading comprehension of discourse with learning disabled, reading disabled and normal children is encouraged based on the results of the present study.

THE RELATIONSHIPS BETWEEN STUDENT RETELLINGS AND SELECTED COMPREHENSION MEASURES Order No. 8125458

SADOSKI, MARK CHRISTIAN, PH.D. *The University of Connecticut*, 1981. 131pp.

This study examines the relationships between retellings, an indicator of reading comprehension obtained through a student's oral recall of a story, and three other indicators of reading comprehension representing various viewpoints in comprehension measurement: miscues, a post oral-reading cloze test, and a multiple-choice questions test using items that are passage-dependent. Forty-eight grade five students of diverse abilities orally read a complete basal reader story. A comprehension process (miscue) score is derived and the subjects are then given the remaining comprehension tasks in counterbalanced order. Six research questions utilize multiple regression techniques to probe the relationships between these indicators and the subscores in the retelling format for stories as specified in the miscue analysis procedures. The nucleus of the study is a demonstration of a potential solution to the problem of unsustained concurrent validity between retelling scores and other comprehension indicators taken from the same reading. Additional analysis establishes a corroborative framework between the indicators using correlation to demonstrate concurrent and predictive validity. A confirmatory factor analysis defines three measurement levels in the data which are theoretically interpretable from a levels-of-processing perspective. The results of the study suggest a degree of construct validity for the indicators used and yield support for miscue theory and levels-of-processing theory in reading comprehension.

A COMPARISON OF THE ORAL READING, PHONETIC-ANALYSIS, COMPREHENSION, AND CONSERVATION ABILITIES OF EARLY READERS Order No. 8127395

SCHANTZ, LETTY MOXLEY, PH.D. *East Texas State University*, 1981. 131pp. Adviser: Sally L. Kirkham

Purpose of the Study. The purpose of this study was to describe and compare kindergarten early readers' ability to conserve, overall reading achievement, reading comprehension, recognition of words in orally-read printed text, and skills of phonetic analysis.

Procedure. Initially, 128 kindergarten children from the public schools of Richardson, Texas, who were able to read and who had not received formal instruction in reading were identified by teacher judgment. All were screened with Durkin's (1966:151) thirty-seven-word list. Those eighty-seven who read eighteen or more of the thirty-seven words and attained a raw score of at least 1 on the *Gates-MacGinitie Reading Tests*, Level A, Form 1, comprised the sample for study.

Each subject was administered the graded passages and phonetic-analysis survey of a diagnostic reading inventory and the *Goldschmid-Bentler Conservation Battery*, Form A. The order of presenting measures was randomly assigned in advance.

The data obtained were analyzed by two procedures. First, 27 percent of the total sample was selected at each extreme to yield high and low conservation groups of early readers to determine if subjects with high and low levels of conservation differed significantly on four reading variables: overall reading achievement, oral reading comprehension, accuracy of word recognition, and phonetic-analysis skills. Second, a *t*-test of a difference between the means was employed to analyze differences between correlated measures of all subjects' oral reading comprehension, word recognition within orally-read printed text, and phonetic-analysis skills.

Findings. Analyses revealed no significant differences in the overall reading achievement, oral reading comprehension, word recognition, and phonetic-analysis skills of early readers with high and low levels of conservation. Significant differences were determined in subjects' oral reading comprehension, recognition of words in printed text, and phonetic-analysis skills. Measures of early readers' ability to phonetically analyze nonsense words were significantly higher than those of recognizing words in orally-read printed text and of oral reading comprehension. Levels of early readers' word recognition were significantly higher than their levels of oral reading comprehension.

Descriptive analyses of conservation revealed that only ten early readers were conservers. The largest number indicated no ability to conserve. Most subjects were unable to explain transformations requiring conservation. On individual tasks, a majority conserved two-dimensional space and number. Many conserved substance and continuous quantity.

Descriptive data related to instructional reading levels indicated that sixty-six subjects adequately read graded materials. For these subjects, mean instructional levels were first reader for word recognition and primer for comprehension. Many accurately read high-third-grade material and utilized phonetic-analysis skills presented in low-second-grade material. At the instructional level, all sixty-six subjects substituted words. Frequent errors were return sweep and refusals. Reading strengths were knowledge of sight words, ability to use the context, reading with expression and fluency, and decoding contractions and compound words. Loss of place and repetitions were frequent weaknesses in oral reading.

Descriptive data related to skills of phonetic analysis indicated that most beginning consonant sounds and many digraphs and short vowels were utilized in nonsense tasks. Large variations in blend application and little awareness of generalizations for long vowel combinations were apparent.

Conclusions. Results of this study indicate that ability to conserve does not facilitate or limit the decoding and comprehension of early readers. Furthermore, decoding rather than reading with understanding appears to characterize the oral reading of children who read early.

CONTEXTUAL PREREQUISITES FOR MAKING INFERENCES FROM TEXT: A DEVELOPMENTAL STUDY Order No. 8113222

WAGNER, MICHAEL PAUL, PH.D. *University of California, Berkeley*, 1980. 61pp.

The principal purpose of this study is to account for age-related differences in the derivation of inferences from text. In accordance with this goal, the relevant literature concerned with developmental differences in memory performance is reviewed. In addition, methodological issues pertinent to the measurement of text memory are addressed. Contrary to the conclusions of previous research it is questioned whether developmental differences in inference performance can be explained entirely in terms of corresponding differences in premise knowledge. Rather, it is hypothesized that these effects are due to age-related differences in the use of elaborative, integrative procedures that provide a meaningful context for text, resulting in a psychological representation in memory which includes inference information. The employment of these procedures depends on at least two factors; first, one's repertoire of experience which can be used to generate such meaningful contexts and second, the extent to which an appropriate context is suggested by the text itself. Thus, the provision of additional context-related cues in a text should enhance the opportunity to utilize elaborative procedures.

In view of these hypotheses, a text memory task was administered to students from two different grade levels (fifth, twelfth). Each subject was given one of three versions of the input (baseline, schema-implicit, schema-explicit), then tested on his retention of either premise or inference information. The two augmented versions were generated from the baseline condition by adding context-related cues. These input versions were included to provide younger students with a greater opportunity to use elaborative procedures and consequently improve their inference performance.

As expected, significant age difference in inference performance were obtained in the baseline condition while equivalent and high levels of inference performance for both age groups were obtained with the augmented texts. Furthermore, this pattern of effects was not reflected in premise performance. These data support the hypotheses proposed here rather than alternatives such as those derived from the constructive view of text memory.

THE IMPACT OF A PROGRAM OF CRITICAL THINKING ON READING COMPREHENSION REMEDIATION AND CRITICAL THINKING OF MIDDLE AND HIGH SCHOOL STUDENTS

Order No. 8116378

WINOCUR, SARA LEE MILLER, PH.D. *United States International University*, 1981. 223pp. Chairperson: Walter Beckman

The Problem. The study tested the effect of an innovative program of remediation emphasizing critical thinking skills on achievement of students, grades 7-9, who had been unsuccessful in passing district reading proficiency tests.

The study sought to determine the broad relationship of critical thinking achievement with reading comprehension achievement. The interaction of critical thinking and reading achievement was determined by treatment group, grade, test occasion, and district. One hypothesis considered critical thinking and levels of reading achievement, two considered critical thinking and norm-referenced assessment of reading comprehension achievement, and three applied to critical thinking and district proficiency, or criterion-referenced assessment of reading achievement. Critical thinking, reading comprehension and reading proficiency were concepts of central interest.

Method. Data were collected from remedial students, grades 7-9, in three Southern California school districts: Unified, Elementary, and High School. The sample included 291 seventh-, 324 eighth-, and 105 ninth-grade students. The investigation represented a nonrandomized, pretest-posttest control group design.

Three instruments were used to measure the dependent variables of critical thinking achievement and reading achievement. The Cornell Critical Thinking Test, Level X, by Ennis and Millman, measured critical thinking achievement; the Comprehensive Tests of Basic Skills, Levels 3,4 (reading comprehension subtests) measured norm-referenced reading comprehension achievement; district proficiency tests, specifically designed to reflect agreed-upon learning objectives, measured criterion-referenced reading proficiency achievement.

Repeated measures multivariate and univariate analyses of variance were employed (at the .05 level) to evaluate the data.

Results. All hypotheses were confirmed to varying degrees. Significant differences between gains made by treatment groups and control groups were found in critical thinking scores, but not in reading comprehension or reading proficiency. Significant differences were found in composites of critical thinking and reading comprehension and in composites of critical thinking and reading proficiency. These significant differences were dependent upon grade level and district.

Critical thinking--significant differences were found between treatment/control group scores across all districts for grades 8,9. Above-average readers demonstrated greater gain than average and below average readers. Below average readers showed no difference in gain from average readers.

Composite of critical thinking and reading comprehension--significant differences between treatment/control group scores were found in the Elementary School District, grade 8, and in the High School District, grade 9.

Composite of critical thinking and reading proficiency--significant differences between treatment/control group scores were found in the Unified School District, grades 8,9; Elementary School District, grades 7,8; and High School District, grade 9.

Significant gains across both the treatment and control groups were found in critical thinking, reading comprehension, and reading proficiency in almost all grade levels of all school districts.

Conclusions. (1) Critical thinking skills can be learned by remedial students in grades 7-9 at any reading level. (2) The Ennis model of critical thinking can be effectively used to supplement a remedial reading program. (3) No loss in reading proficiency gain occurs when a program in critical thinking is substituted for nearly half the lessons in a remediation program. (4) There appears to be a positive relationship between gains in critical thinking achievement and gains in reading proficiency achievement. (5) There appears to be a positive relationship between gains in critical thinking achievement and gains in reading comprehension achievement.

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